

UNIFIED HAZARD MITIGATION ASSISTANCE (HMA) GRANTS



Agenda for the Presentation

2

- What is 'hazard mitigation'...?
- Unified Hazard Mitigation Assistance (HMA) programs: PDM and FMA
- Community Eligibility Requirements
- Eligible Project and Activity Types
- Application Process & Timelines
- Grant Project Management
- Questions

Hazard Mitigation Defined

3

- Mitigation is the effort to reduce loss of life and property by lessening the impact of disasters. Mitigation is taking action *now*—before the next disaster—to reduce human and financial consequences later.
- Disasters can happen at anytime and anyplace; their human and financial consequences are hard to predict.
- FEMA's mitigation programs help reduce the impact of events—and our dependence on taxpayer-funded federal assistance for disaster recovery.

Pre-Disaster Mitigation (PDM)

4

- ❑ Nationally competitive grant program
- ❑ PDM funds available for 'all-hazard' mitigation **projects** (flood, wind, seismic, etc.) and **planning**
- ❑ \$23,000,000 available nationwide
- ❑ Private Non-Profit organizations are not eligible for PDM grants
- ❑ Each state is limited to a total of 10 sub-applications
- ❑ \$3,000,000 limit on project budgets
- ❑ 24-month maximum period of performance
- ❑ Application deadline is July 9, 2014 at 3:00PM

Flood Mitigation Assistance (FMA)

5

- ❑ The Flood Mitigation Assistance (FMA) program is authorized by the National Flood Insurance Reform Act (NFIRA) of 1994 with the goal of reducing or eliminating claims under the NFIP.
- ❑ Nationally competitive grant program.
- ❑ FMA funds available for “flood related” hazards only – with an emphasis on Repetitive and Severe Repetitive Loss Properties.
- ❑ \$89,000,000 available nationally
- ❑ 36-month period of performance
- ❑ Private Non-Profit organizations are not eligible for FMA
- ❑ Application deadline is July 9, 2014 at 3:00PM

RL & SRL Definitions for FY14 FMA

6

Severe Repetitive Loss (SRL) structure*:

- (i) For which 4 or more separate claims payments have been made under flood insurance coverage with the amount of each such claim exceeding \$5,000, and with the cumulative amount of such claims payments exceeding \$20,000; or
- (ii) For which at least 2 separate claims payments have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the insured structure.

Repetitive Loss (RL) structure*:

- (i) Has incurred flood-related damage on 2 occasions, in which the cost of the repair, on the average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event; and
- (ii) At the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance coverage.

*Communities may request a list of their SRL and RL structures from the State NFIP Coordinator

So Who Can Apply?

7

- ❑ Eligible applicants include:
 - State & local governments;
 - Homeowners or businesses are not eligible to apply directly.
 - Indian tribes or tribal organizations;

Entity	HMGP	PDM	FMA
State agencies	√	√	√
Indian Tribal governments	√	√	√
Local governments/communities	√	√	√
Private non-profit organizations (PNPs)	√		

Prerequisites & Related Requirements

8

- All FEMA HMA grant programs require State/Local FEMA-approved 'Multi-Hazard Mitigation Plan'
 - ▣ Pre-Disaster grant programs (PDM, FMA) require an approved plan at time of application*
- Proposed projects must be cost-effective (Benefit-Cost Ratio greater than 1.0)
- Must comply with 44CFR Parts 9 & 10 (Floodplain mgt. & wetland protection) and must be able to be permitted under Federal, State & local permit procedures.

* Plan approval must be before July 9, 2014, which is the State's eGrants submission date

Eligible Mitigation Project Activities

9

Table 3: Eligible Activities by Program

Eligible Activities	HMGP	PDM	FMA
1. Mitigation Projects	√	√	√
Property Acquisition and Structure Demolition	√	√	√
Property Acquisition and Structure Relocation	√	√	√
Structure Elevation	√	√	√
Mitigation Reconstruction			√
Dry Floodproofing of Historic Residential Structures	√	√	√
Dry Floodproofing of Non-residential Structures	√	√	√
Minor Localized Flood Reduction Projects	√	√	√
Structural Retrofitting of Existing Buildings	√	√	
Non-structural Retrofitting of Existing Buildings and Facilities	√	√	√
Safe Room Construction	√	√	
Wind Retrofit for One- and Two-Family Residences	√	√	
Infrastructure Retrofit	√	√	√
Soil Stabilization	√	√	√
Wildfire Mitigation	√	√	
Post-Disaster Code Enforcement	√		
Generators	√	√	
5 Percent Initiative Projects	√		
Advance Assistance	√		
2. Hazard Mitigation Planning	√	√	√
3. Management Costs	√	√	√

Property Acquisition

10

- ❑ Homeowner must work through the community during the application process. They cannot apply directly.
- ❑ The acquisition must be voluntary. This mean the grant cannot be used to pay for eminent domain.
- ❑ Under FMA – For **Severe Repetitive Loss Properties** FEMA may contribute up to 100% of the cost.
- ❑ Under FMA - For **Repetitive Loss Properties** FEMA may contribute up to 90% of the cost.
- ❑ For all other properties FEMA may contribute up to 75% of the cost.
- ❑ The Non-Federal cost share typically comes from the homeowner.
- ❑ The BCA requirement is waived for properties in a NFIP mapped flood zone if the cost of the project is less than or equal to \$276,000.

Structure Elevation

11

- ❑ Homeowners must work through your community during the application process. They cannot apply directly to the State.
- ❑ Under FMA – For **Severe Repetitive Loss Properties** FEMA may contribute up to 100% of the cost.
- ❑ Under FMA For **Repetitive Loss Properties** FEMA may contribute up to 90% of the cost.
- ❑ FEMA may contribute up to 75% of the cost.
- ❑ The Non-Federal cost share typically comes from the homeowner.
- ❑ Construction is required to be in accordance with ASCE/SEI 24-05 and Massachusetts state building codes.
- ❑ Owner must carry flood insurance in perpetuity.
- ❑ The BCA requirement is waived for properties in a NFIP mapped flood zone if the cost of the project is less than or equal to \$175,000.

Drainage Projects

12

- ❑ To be eligible these projects must be a demonstrated upgrade in flow or capacity.
- ❑ Projects to provide drainage for roads where none exists may be eligible if they will minimize stormwater damage.
- ❑ Either have had damage or can demonstrate through an engineer's report that damages would likely occur.
- ❑ Stream crossing standards must be considered in the design phase.
- ❑ Cannot be considered major flood control systems.

Slope Stabilization Projects

13

- These projects look to eliminate erosion hazards that will or have affected local populations or commerce.
- The use of geotextiles, stabilization sod, installing vegetative buffer, decreasing slope angles, and using slope anchoring means are eligible construction methods.

Generators

14

- ❑ For the FY 2014 PDM program, a permanently installed generator that is a stand-alone project may be considered if the generator protects a critical facility.
- ❑ BCA is required.
- ❑ Portable generators are eligible provided that they meet all requirements as described in HMA Guidance.
- ❑ May be eligible as a functional component of another eligible mitigation activity (e.g. appropriately sized generator to operate automated hurricane shutters).

Planning

15

- ▣ Mitigation plans are the foundation for effective risk reduction;
- ▣ Eligible mitigation planning activities may only include:
 - Development of a new mitigation plan; or
 - Comprehensive review and update of an existing FEMA-approved HM plan
 - Other planning activities as described in Hazard Mitigation Assistance Unified Guidance-July 2013, Page 28, D1.2.1
- ▣ No BCA required for planning applications;
- ▣ FEMA plan approval generally good for 5-years;
- ▣ Failure to complete planning grant = FEMA recoupment of grant \$\$\$

Mitigation Planning – more than ✓ to fulfill 44 C.F.R §201.6

16

- Proper planning now will save \$\$\$\$ in the long term!!!
 - \$4 saved for every \$1 spent on Mitigation
- Convene a Local Planning Team.
 - This team should include Town officials and all other Stakeholders (i.e. DPW Director, Town Planner, EMD, Fire, Police, Academia, Chamber of Commerce, and Local Citizens)
- Where are the hazards?
 - Mapping the hazards.
- What and where are the risks?
 - What structures are located in the Hazard Zones?
 - How likely are these structures to be damaged?
 - How critical to disaster response and recovery are these structures?
 - What is the potential damage?

What is in a Mitigation Plan

17

- **What is already being done to mitigate potential damage?**
- **What is not being done?**
 - Where are the gaps in protection?
- **What actions can be taken?**
 - Evaluate actions and alternatives.
- **What are our priorities?**
 - Select actions.
- **How can we implement?**
 - Develop a strategy.
 - Adopt and monitor the plan.

What Projects are Ineligible?

18

- ❑ Projects that are dependent on a contingent action in order to be effective and/or feasible;
- ❑ Projects where physical work has already begun;
- ❑ Projects that involve land that is contaminated with hazardous waste;
- ❑ Projects for preparedness temporary measures (e.g., sandbags, bladders, geotubes);
- ❑ All projects located in a CBRS Unit or in OPAs, other than property acquisition;
- ❑ Major flood control projects (dams, dikes, levees, floodwalls, seawalls, groins, jetties, breakwaters);
- ❑ Projects that address deferred maintenance, repairs, or replacement of existing infrastructure (e.g., dredging, debris removal, replacement of obsolete utility systems, bridges);
- ❑ Preparedness measures and response equipment (e.g., response training, electronic evacuation road signs, interoperable communications equipment).

How To Apply

19

- ❑ Application is completed online using FEMA's eGrants system at <https://portal.fema.gov>
- ❑ Click on “New User” and follow the instructions. Once this is completed send an email to shirletta.leung@state.ma.us
- ❑ Letter from the Chief Elected Official or Town Manger/Administrator must be submitted to MEMA before your account can be activated.
- ❑ Sample letter and detailed instructions are on the MEMA website.

PDM Ranking and Selection Process

20

For PDM, MEMA/DCR is limited to submitting 10 sub-applications (up to 2 project and/or up to 10 planning).

The review and ranking process for MEMA/DCR will be the same as with the HMGP grants. MEMA/DCR will have a limited opportunity to ask for application clarifications.

The following FEMA priorities for funding will be used for PDM selections for the national ranking process:

1. State's 1% set aside up to a maximum of \$250,000 Federal share per Applicant.
2. FEMA will set aside \$5 million to select eligible sub-applications from each Tribal Applicant
3. FEMA will select any remaining eligible sub-application(s) on a competitive basis regardless of the Applicant's rank in the following order:
 1. Planning sub-applications
 2. Non-flood mitigation projects
 3. Flood mitigation projects

FEMA will prioritize projects within each competitive category for selection by the highest FEMA-validated Benefit Cost Ratio.

FMA Ranking and Selection Process

21

- Planning subapplications up to \$100,000 Federal share per Applicant.
- Subapplications that mitigate **SRL properties** in order by the highest percentage of SRL properties.
- Subapplications that mitigate **RL properties** as funds are available in order by the highest percentage of RL properties.

Application Components

22

Common Application Elements include:

- ❑ Problem Description (why are you applying for this grant?)
- ❑ Scope of Work
- ❑ Cost Estimate (Budget, includes match details)
- ❑ Schedule (period of performance)
- ❑ Alternatives analysis
- ❑ Benefit-Cost Analysis (BCA)
- ❑ Environmental & Historic Preservation Information

Project Scope of Work (SOW)

23

- ❑ Purpose of the Project – The intended outcome of the objective
- ❑ Clear, concise description of the proposed project
 - Include the Who, What, Where, and How of the proposed project
 - Should be thorough enough so that a person who might never see the site would understand the proposed project
- ❑ Identification of the properties to be mitigated
- ❑ Proposed project accomplishments
- ❑ Feasibility and effectiveness of the project

Example SOW

24

The scope of work must include **all specific elements or steps** to accomplish the work:

- ❑ Engineering and design (surveys, technical analyses [such as H&H analyses], engineering drawings, etc.)
- ❑ Prepare bid package and obtain contractor
- ❑ Permitting
- ❑ Construction
 - ❑ Site access, storage, staging, and security
 - ❑ Site preparation
 - ❑ Temporary construction, earthwork, excavation, etc.
 - ❑ Installation of structures, pipes, equipment, etc.
 - ❑ On-site project management
 - ❑ Site restoration, seeding, demobilization
- ❑ Contract Closeout, MEMA/FEMA site visit

Important Project Considerations

25

- Upstream/downstream impacts of flood project?
- Level of protection provided by proposed project?
 - ▣ 50-year flood? Category 2 Hurricane Wind?
 - Provide documentation to support level of protection
 - Residual risk 'after mitigation' – not a 100% solution...
- Level of design req'd for application will be determined by complexity & magnitude of proposed project.

Project Cost Estimate (Budget)

26

- ❑ Be conservative w/cost estimates:
 - ❑ Consider grant award date & future construction costs/timing
 - ❑ Include everything from your scope of work
- ❑ No 'contingency' line items in budget/cost estimate
- ❑ Avoid 'lump sum' cost items – unit quantities needed
- ❑ Management Costs are limited to 5% of total project cost
- ❑ Indirect costs have specific restrictions; see program guidelines

Pre-Award Costs

27

- ❑ Costs directly related to developing mitigation application:
 - ▣ Preliminary design, conducting Benefit-Cost Analysis, environmental/historic preservation coordination
 - ▣ Funded subject to FEMA discretion
 - ▣ Must be described in scope of work
 - ▣ List as a separate line item in budget
 - ▣ Projects not selected for funding will not receive reimbursement for pre-award costs
 - ▣ For costs beginning on or after April 21, 2014

Grant Cost Share

28

- **FMA** cost share varies depending on the project. Available cost shares include: 75% federal/25% non-federal, 90%/10%, and 100%/0%
- **PDM** is funded 75% FEMA & 25% non-federal match
- Non-federal match may include:
 - ▣ Cash
 - Local, state, private cash payments
 - Federal grants are not allowable unless the authorizing statute for that grant explicitly allows the funds to be used as cost share for other Federal grants.
 - ▣ In-Kind Contributions
 - Force account labor (e.g. DPW staff), equipment, materials, contract labor (e.g. engineering contract), donated labor
 - Needs to be detailed in application
- Non-federal match for mitigation of private structures generally provided by individual property owner

Project Schedule

29

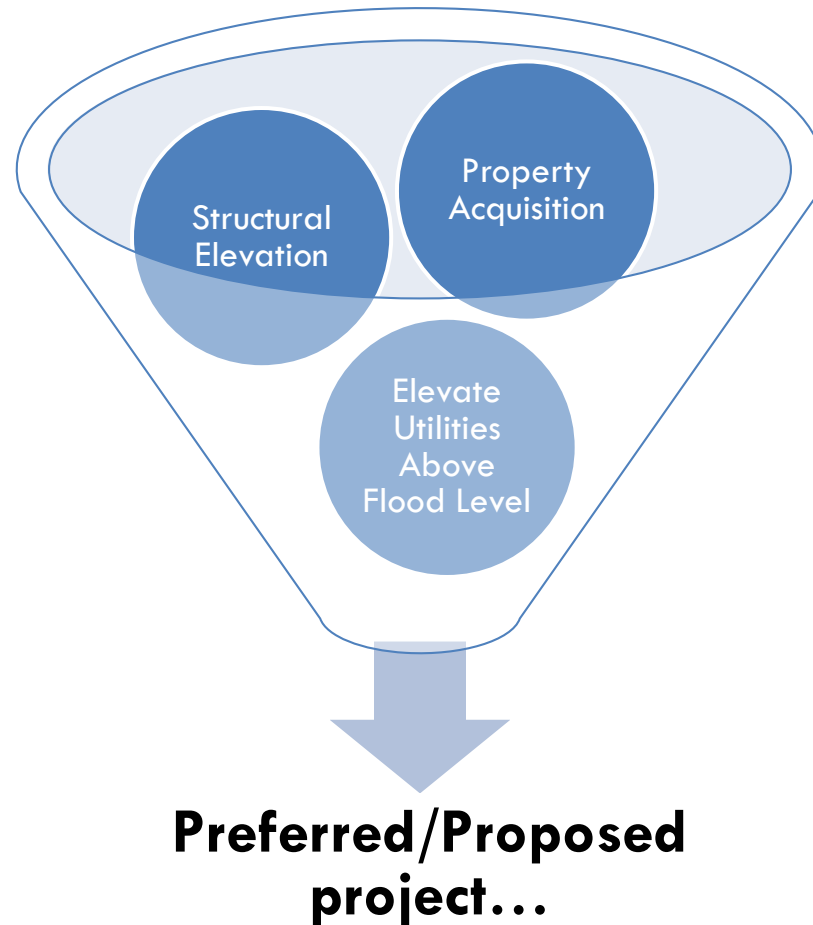
- ❑ Develop an estimated project schedule that includes all important milestones.
- ❑ As a starting point for your schedule look to the line items in your budget and all the activities in your scope of work.
- ❑ PDM allows for up to 24 months from award date.
- ❑ FMA allows for up to 36 months from award date.

Alternatives Analysis

30

FEMA regulations require consideration of a range of alternatives in your application:

- **Proposed project is Alternative #1 (most detailed description – full scope, budget & schedule)**
- **Two (2) other feasible alternative must be described/discussed - why not selected? (less detail; try to avoid the “No Action” alternative)**



Benefit-Cost Analysis (BCA)

31

- Required for all project applications (except plans);
- BCA looks at damages twice – before & after mitigation;
- Benefits = damages & losses avoided with mitigation project implementation...
 - ▣ Avoided physical damages to infrastructure, buildings, contents, etc.
 - ▣ Economic impact of loss of function for roads, bridges, utilities, detour times, etc.
 - ▣ Avoided emergency response costs (evacuations, EOC costs, debris removal & clean-up costs)

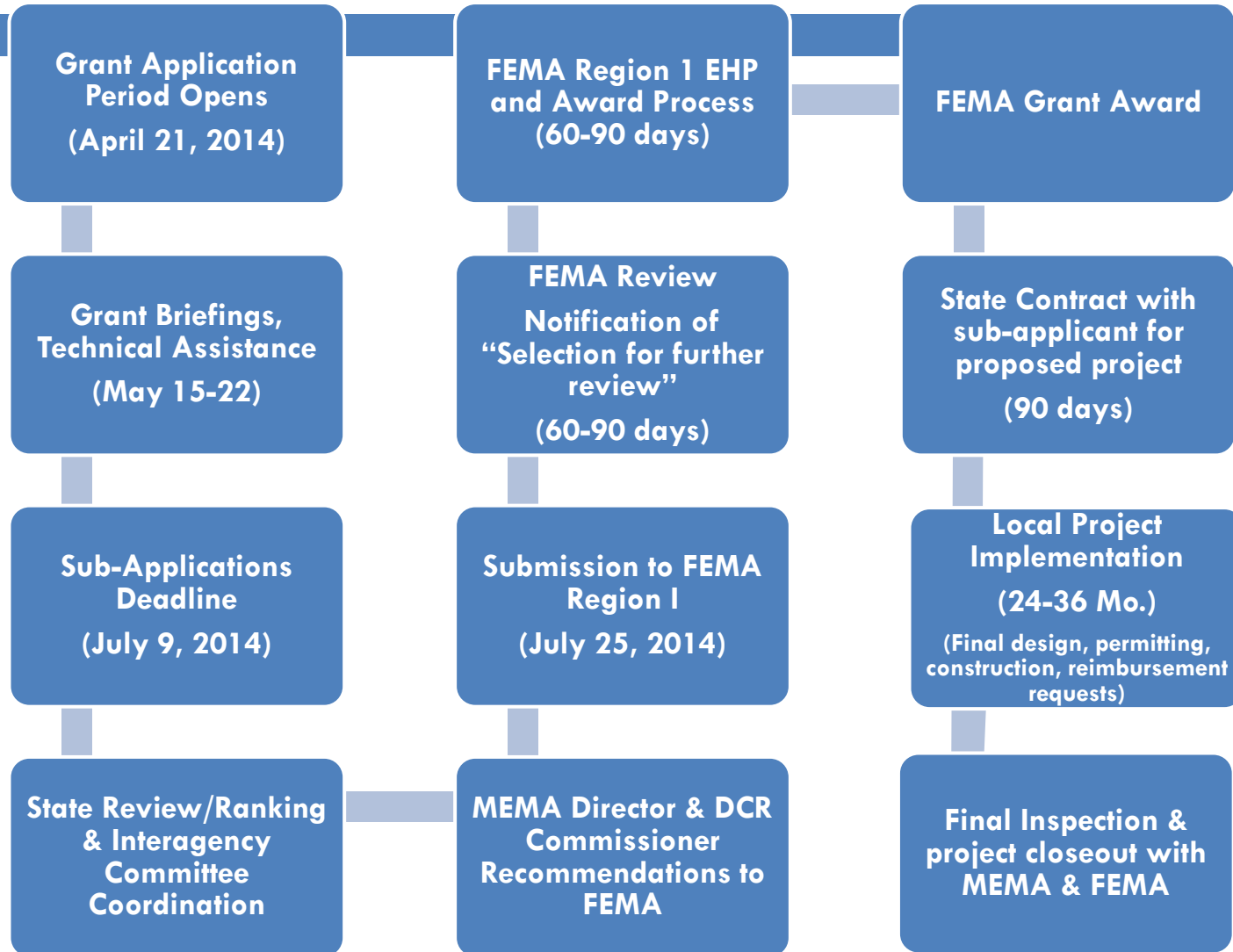
Benefit-Cost Analysis (BCA)

32

- ❑ ***Don't wait to start thinking about BCA...use as project screening tool before developing full application!***
- ❑ All data and assumptions must be clearly documented & attached to BCA;
- ❑ Benefit-Cost Ratio (BCR) must be above 1.0 to be 'cost-effective';
- ❑ FEMA BCA Toolkit (software, training & resources):
 - Free download @: <http://www.fema.gov/benefit-cost-analysis#1>
 - BCA Version 4.8 or 5.0 are accepted

HMA Grant Application Process

33



Environmental & Historic Preservation Review

34

- Funds will not be awarded & project cannot start until FEMA environmental & historic preservation review is completed.
- ▣ FEMA will conduct federal NEPA compliance review
 - Must provide complete & accurate project description and provide application info to make FEMA aware of potential environmental, historic or archeological issues associated with proposed project.
- ▣ Permits not required at time of application, but application must I.D. the permits required, from whom, how much (\$), how long?

What you need to know about FEMA Mitigation Grants...

35

- MEMA is conduit for applications and funding to and from FEMA;
- The process from grant application to award can take several months or longer- please be prepared;
- It is the community's responsibility to maintain their hazard mitigation plan for eligibility;
- If awarded a grant, **all FEMA HMA programs are managed on a 'reimbursement' basis;**
 - ▣ Standard 'State Contract' is mechanism for funding
 - ▣ Cashflow - must have sufficient local funds to pay engineers, contractors, etc. – reimbursement requests for FEMA \$\$\$ with supporting documentation
 - ▣ Partial reimbursements allowable
 - ▣ 10% retainage until 100% complete & final inspection by MEMA/FEMA
 - ▣ Quarterly performance reporting is required
 - ▣ No additional funds are available for cost overruns; be conservative developing cost estimates

Grant Resources:

36

Check the Disaster Recovery & Mitigation section of MEMA website for more information.

www.mass.gov/mema

Unified HMA Guidance: <http://www.fema.gov/media-library/assets/documents/33634?id=7851>

PDM Info: <http://www.fema.gov/government/grant/pdm/index.shtm>

FMA Info: <http://www.fema.gov/government/grant/fma/index.shtm>

Coastal Zone Management (CZM) – Storm Smart Coasts:

<http://www.mass.gov/czm/stormsmart/index.htm>

Massachusetts River & Stream Crossing Standards:

http://www.nae.usace.army.mil/reg/Stream/MA_RiverStreamCrossingStandards.pdf

Benefit-Cost Analysis Helpline: 1-855-540-6744 bchelpline@dhs.gov

Benefit-Cost Software download: <http://www.fema.gov/benefit-cost-analysis#1>

Engineering Helpline: 1-855-540-6744 enghelpline@dhs.gov

Env./Historic Helpline: 1-855-540-6744 ehhelpline@dhs.gov

Additional Assistance:

37

State Hazard Mitigation Team “Technical Assistance Meetings”

- We strongly encourage interested sub-applicants meet with State Team one-on-one to discuss project proposals, application process, general mitigation issues, etc.
- To schedule an appointment email: beth.dubrawski@state.ma.us

Dan Nietsche

Hazard Mitigation Grants Coordinator

Dan.Nietsche@state.ma.us

(508) 820-2016

David Woodbury

Hazard Mitigation Grants Coordinator

David.Woodbury@state.ma.us

(508) 820-2034

Additional Contact Info

Scott MacLeod

Mitigation & Disaster Recovery Section Chief

Scott.MacLeod@state.ma.us

(508) 820-1445

Sarah White

Mitigation Grants Supervisor

Sarah.white@state.ma.us

(508) 820-2053

Rich Zingarelli

Acting State Hazard Mitigation Officer

Department of Conservation & Recreation

Richard.Zingarelli@state.ma.us

(617) 626-1406

Recent Mitigation Highlights...

38

- Greenfield – Property Acquisition
- Becket – Slope Stabilization
- Scituate – Elevations
- Melrose – Drainage Improvements
- Harwich – Wind Retrofit
- Boxboro – Emergency Generators

Greenfield – Property Acquisition

39

- ❑ October 2005 flood disaster;
- ❑ 14.8 acre parcel w/ 37 Mobile Homes; ~100 residents displaced;
- ❑ Convert to open space in perpetuity; connect w/ existing bike trail;
- ❑ Funding/Grant:
 - ▣ \$1.15M Total Cost
 - ▣ \$855,850 FEMA FMA Grant
 - ▣ non-federal match (Urban Self-Help Grant)



Greenfield – Property Acquisition

40

Before...



After...



Becket – Brooker Hill Road/ Slope Stabilization

41

- ❑ Emergency access route (road closed = major detours);
- ❑ Recurrent erosion issues;
- ❑ ‘Wild & Scenic River’ designation – NPS involved;
- ❑ Bio-engineered solution;
- ❑ FEMA '05 PDM Grant award: \$248,464 Total Cost
 - ▣ \$186,348 FEMA Grant
 - ▣ \$62,116 local share
- ❑ Completed Fall 2008



Becket – Road/Slope Stabilization

42

Before...



After...

Structural Elevations...

Before:

43

- ❑ Funded under SRL 2012 Grant Program
- ❑ Two Homes elevated under the single grant application
- ❑ Elevation of structures is noted as an ongoing hazard mitigation strategy for the Town

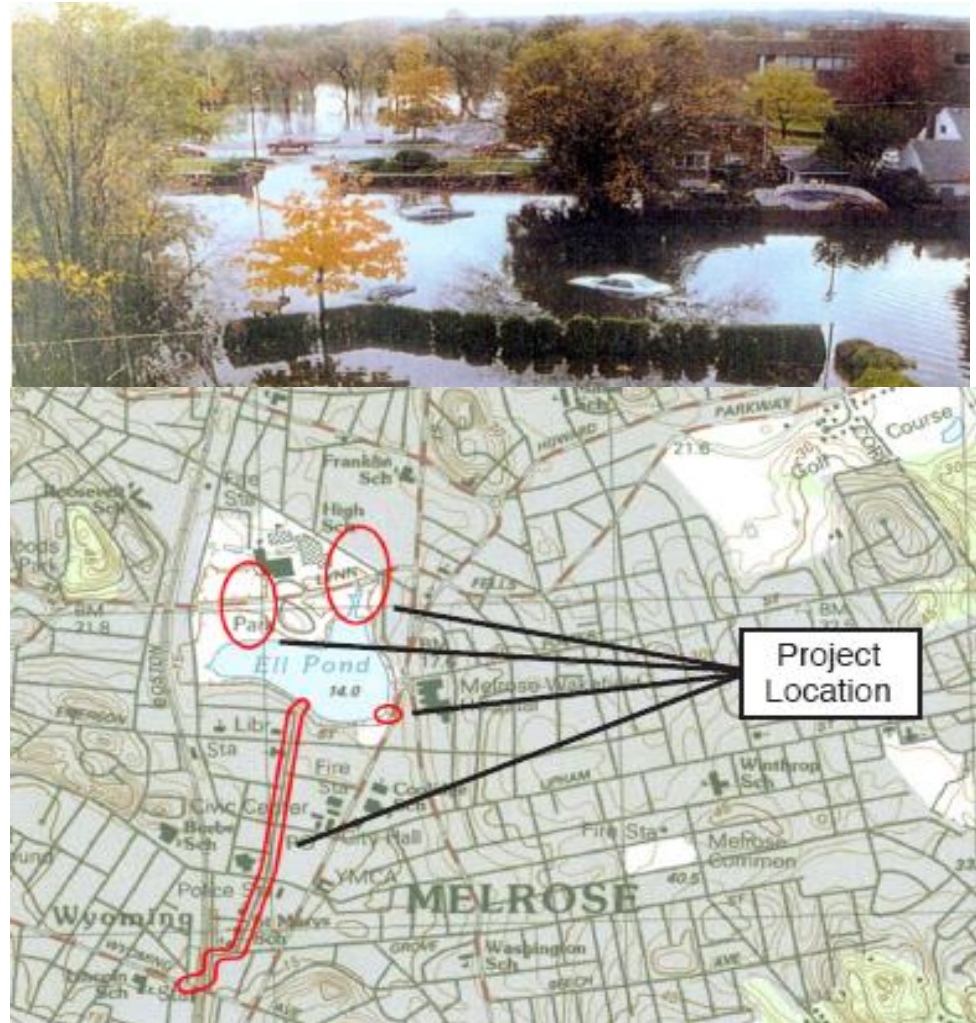


During:

Melrose – Ell Pond Drainage

44

- ❑ Significant flood impacts to major roads, High School, Towers Apt., DPW Yard;
- ❑ Culvert Upgrades, Upsize Drainage Pipe & Outlet Control Structure;
- ❑ '05 PDM Grant Award:
 - ▣ \$2.3M Total Cost
 - ▣ \$1.75M FEMA Award
 - ▣ \$582,000 Local Share



Melrose – Ell Pond Outlet Structure

45

Before:



After:



Harwich – Wind Retrofit Community Shelter

46

Before:



- ❑ Community shelter & cable access emergency station;
- ❑ Clear polycarbonate resin panels for all window openings;
- ❑ Annual drill (and O&M) for installation;
- ❑ \$53,900 total cost (\$40,425 HMGP grant)

After:



Boxboro – Emergency Generators

47

- ❑ Existing school designated local emergency shelter; adjacent fire/police/EOC also served by existing water well house
- ❑ No prior back-up power for school or well house
- ❑ Project successfully completed Spring 2014

